Table 2: RBOCs

Chart D1: Components of FCC LEC Price Cap X-Factor [Excluding CPD], Excluding Special Access

	Input Price Growth Rates			Total Factor Productivity Growth Rates			LEC
	Total RBOCs	U.S. Nonfarm Business Sector	Differential	Total RBOCs	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1990	1.88%	3.31%	1.43%	5.69%	-0.47%	6.16%	7.6%
1991	-0.85%	2.06%	2.91%	0.78%	-0.89%	1.67%	4.6%
1992	2.68%	2.88%	0.21%	3.89%	1.10%	2.79%	3.0%
1993	2.27%	3.72%	1.44%	2.14%	0.55%	1.59%	3.0%
1994	-0.19%	3.50%	3.69%	1.34%	0.50%	0.84%	4.5%
1995*	1.31%	3.09%	1.78%	4.85%	0.16%	4.69%	6.5%
Averages							
[1990-95]	1.18%	3.09%	1.91%	3.12%	0.16%	2.96%	4.9%
[1991-95]	1.04%	3.05%	2.01%	2.60%	0.28%	2.32%	4.3%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

APPENDIX

CINCINNATI BELL ESTIMATES
BASED ON
FCC STAFF MODEL

Cincinnati Bell Estimates based on FCC Staff Model

Chart D1: Components of FCC LEC Price Cap X-Factor [Excluding CPD], Excluding Special Access

	Input Price Growth Rates			Total Factor Productivity Growth Rates			CBT
	CBT	U.S. Nonfarm Business Sector	Differential	CBT	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1990	-0.03%	3.31%	3.34%	-6.60%	-0.47%	-6.13%	-2.8%
1991	2.11%	2.06%	-0.05%	-0.66%	-0.89%	0.23%	0.2%
1992	-5.09%	2.88%	7.97%	-1.82%	1.10%	-2.92%	5.1%
1993	-1.37%	3.72%	5.08%	3.41%	0.55%	2.86%	7.9%
1994	6.49%	3.50%	-2.99%	5.02%	0.50%	4.52%	1.5%
1995*	-1.30%	3.09%	4.39%	-5.19%	0.16%	-5.35%	-1.0%
Averages							
[1990-95]	0.14%	3.09%	2.96%	-0.97%	0.16%	-1.13%	1.8%
[1991-95]	0.17%	3.05%	2.88%	0.15%	0.28%	-0.13%	2.8%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

Cincinnati Bell Estimates based on FCC Staff Model

Chart D2: Cincinnati Bell Interstate Revenues

Year	End User A	Interstate Switched Access B	Special Access C	Total Interstate D = A + B + C
1985	#N/A	#N/A	#N/A	#N/A
1986	#N/A	#N/A	#N/A	#N/A
1987	#N/A	#N/A	#N/A	#N/A
1988	**$23,263,000**	**$44,574,000**	**$0**	$67,837,000
1989	**$27,150,000**	**$41,133,000**	**$0**	$68,283,000
1990	**$32,865,000**	**$38,202,000**	**$0**	$71,067,000
1991	**$34,284,000**	**$38,906,000**	**$0**	$73,190,000
1992	**$35,775,000**	**$45,592,000**	**$0**	$81,367,000
1993	**$37,435,000**	**$40,597,000**	**$0**	$78,032,000
1994	**$39,793,000**	**$49,547,000**	**$0**	$89,340,000
1995	**$41,830,000**	**$51,727,000**	**$0**	$93,557,000

Sources: **Column A: SOCC (account 5081), Column B: SOCC (account 5082)**

Chart D3: Cincinnati Bell REVENUES (Excluding Miscellaneous Services)

Year	Local Service A	Intrastate Toll and Intrastate Access B	Interstate C	Total D = A + B + C
1985	#N/A	#N/A	#N/A	#N/A
1986	#N/A	#N/A	#N/A	#N/A
1987	#N/A	#N/A	#N/A	#N/A
1988	**$255,099,000**	**$68,565,000**	$67,837,000	$391,501,000
1989	**$268,379,000**	**$66,804,000**	$68,283,000	$403,466,000
1990	**$277,664,000**	**$70,689,000**	$71,067,000	$419,420,000
1991	**$286,191,000**	**$70,969,000**	$73,190,000	$430,350,000
1992	**$293,371,000**	**$71,220,000**	$81,367,000	$445,958,000
1993	**$304,104,000**	**$77,663,000**	$78,032,000	$459,799,000
1994	**$329,269,000**	**$70,790,000**	$89,340,000	$489,399,000
1995	**$352,598,000**	**$63,767,000**	$93,557,000	$509,922,000

Sources: **Column A: SOCC (account 520)**
Column B: SOCC (accounts 5084+525)

Cincinnati Bell Estimates based on FCC Staff Model

Chart D4: Calculation of Fisher Ideal Index for Interstate Output

	Revenue Shares			Quantities			Output Indices			Interstate	
Year	End User	Interstate Switched Access	Special Access	Access Lines	Switched Access Minutes	Special Access Lines	Laspeyres A	Paasche B	Fisher Relative C=(A*B)^0.5	Output Quantity Index	Growth
1985	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
1986	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1987	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1988	34.29%	65.71%	0.00%	750,824	1,558,531,719	1	#N/A	#N/A	#N/A	1.000000	#N/A
1989	39.76%	60.24%	0.00%	769,319	1,685,109,383	1	1.061812	1.057986	1.059897	1.059897	5.82%
1990	46.25%	53.75%	0.00%	789,619	1,788,450,590	1	1.047434	1.044877	1.046155	1.108817	4.51%
1991	46.84%	53.16%	0.00%	797,786	1,852,206,578	1	1.023946	1.023639	1.023792	1.135198	2.35%
1992	43.97%	56.03%	0.00%	816,791	1,985,240,120	1	1.049339	1.050176	1.049757	1.191683	4.86%
1993	47.97%	52.03%	0.00%	837,999	2,132,281,286	1	1.052918	1.050440	1.051678	1.253267	5.04%
1994	44.54%	55.46%	0.00%	866,657	2,336,493,325	1	1.066232	1.067464	1.066848	1.337045	6.47%
1995	44.71%	55.29%	0.00%	906,296	2,535,565,896	1	1.067624	1.067195	1.067409	1.427174	6.52%
										Average [1986-94]	#N/A
										Average [1986-95]	#N/A

Sources: **Access Lines: SOCC, Table 2.10**
Switched Access Lines: CBT Interstate MOU data

Chart D5: Calculation of Fisher Ideal Index for Total Company Output

	Revenue Shares			Quantities			Output Indices			Total	
Year	Local Service	Intrastate Toll and Intrastate Access	Interstate	Number of Local Calls	Intrastate DEMs	Interstate Quantity Index	Laspeyres A	Paasche B	Fisher Relative C=(A*B)^0.5	Company Output Index	Growth
1985	#N/A	#N/A	#N/A	#NA	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1986	#N/A	#N/A	#N/A	#NA	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1987	#N/A	#N/A	#N/A	#NA	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1988	65.16%	17.51%	17.33%	3,245,000,000	620,809,848	1.000000	#N/A	#N/A	#N/A	1.000000	#N/A
1989	66.52%	16.56%	16.92%	3,629,000,000	763,180,000	1.059897	1.127649	1.124654	1.126151	1.126151	11.89%
1990	66.20%	16.85%	16.94%	3,439,000,000	861,957,000	1.108817	0.994415	0.990309	0.992360	1.117547	-0.77%
1991	66.50%	16.49%	17.01%	3,494,697,000	844,393,000	1.135198	1.011319	1.011246	1.011282	1.130155	1.12%
1992	65.78%	15.97%	18.25%	3,516,024,000	879,090,000	1.191683	1.019297	1.019307	1.019302	1.151970	1.91%
1993	66.14%	16.89%	16.97%	3,707,769,000	879,535,000	1.253267	1.045385	1.044526	1.044955	1.203757	4.40%
1994	67.28%	14.46%	18.26%	3,956,269,000	905,837,000	1.337045	1.060723	1.061457	1.061090	1.277294	5.93%
1995	69.15%	12.51%	18.35%	3,945,715,000	914,284,295	1.427174	1.011860	1.011013	1.011436	1.291901	1.14%
										Average [1986-94]	#N/A
										Average [1986-95]	#N/A

Sources: **Number of Local Calls: SOCC, Table 2.10**
Intrastate DEMs: NECA and CBT data

Cincinnati Bell Estimates based on FCC Staff Model

Chart D6: Labor Input Price and Growth

RBOC Year	Total Employees A	Total Compensation B	Labor Rate Annual C = B / A	Labor Price Index (Base = 1985)	Labor Growth %Chg in A	**Total Employees D**	**Total Compensation E**	**Total Op. Exp (000) F**	**Nonreg Op. Exp. (000) G**
1985	#N/A	#N/A	#N/A	#N/A					
1986	#N/A	#N/A	#N/A	#N/A	#N/A				
1987	#N/A	#N/A	#N/A	#N/A	#N/A				
1988	3,226	116,778,051	36,204	1.000000	#N/A	**4,127**	**149,412,000**	**392,412**	**85,709**
1989	3,340	124,427,688	37,258	1.029120	3.47%	**4,271**	**159,128,000**	**417,173**	**90,971**
1990	3,419	128,767,896	37,666	1.040386	2.34%	**4,250**	**160,079,000**	**429,197**	**83,950**
1991	3,127	139,342,120	44,558	1.230752	-8.91%	**3,813**	**169,898,000**	**452,976**	**81,467**
1992	3,131	118,616,259	37,885	1.046451	0.12%	**3,703**	**140,289,000**	**433,734**	**67,006**
1993	2,981	106,108,142	35,599	0.983294	-4.92%	**3,419**	**121,712,000**	**420,255**	**53,878**
1994	2,969	119,253,561	40,171	1.109577	-0.40%	**3,347**	**134,451,000**	**451,398**	**51,023**
1995	2,435	116,895,157	48,001	1.325857	-19.84%	**2,762**	**132,678,000**	**507,002**	**59,974**
				Average [1986-94]	#N/A				
				Average [1986-95]	#N/A				

*Sources:

Column A: Columns D * [(F-G)/F]
Column B: Columns E * [(F-G)/F]
Column D: SOCC
Column E: SOCC
Column F: CBT 43-01 ARMIS Report, account 1190 (b)
Column G: CBT 43-01 ARMIS Report, account 1190 (c)

Cincinnati Bell Estimates based on FCC Staff Model

Chart D10: Factor Shares of Total Payments

Year	Labor Compensation	Materials Payment	Property Income /w Depreciation	Total Factor Payment	Labor Compensation Share	Materials Payment Share	Property Income /w Depreciation Share
1985	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1986	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1987	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1988	116,778,051	102,866,949	196,225,765	415,870,765	28.08%	24.74%	47.18%
1989	124,427,688	121,241,312	178,069,348	423,738,348	29.36%	28.61%	42.02%
1990	128,767,896	138,717,104	181,566,044	449,051,044	28.68%	30.89%	40.43%
1991	139,342,120	145,784,880	181,734,480	466,861,480	29.85%	31.23%	38.93%
1992	118,616,259	160,993,741	180,930,886	460,540,886	25.76%	34.96%	39.29%
1993	106,108,142	169,190,858	183,479,610	458,778,610	23.13%	36.88%	39.99%
1994	119,253,561	169,733,439	205,010,893	493,997,893	24.14%	34.36%	41.50%
1995	116,895,157	224,775,843	177,793,760	519,464,760	22.50%	43.27%	34.23%

Cincinnati Bell Estimates based on FCC Staff Model

Chart D11: Input Quantity Index

	Shares			Quantities			Quantity Indices				
Year	Labor Compensation	Materials Payment	Property Income /w Depreciation	Labor	Materials	Capital	Laspeyers A	Paasche B	Fisher Relative C=(A*B)^0.5	Fisher Chain	Growth
1985	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
1986	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1987	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1988	28.08%	24.74%	47.18%	3,226	97,138,895	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1989	29.36%	28.61%	42.02%	3,340	110,365,237	1.00000	#N/A	#N/A	#N/A	1.000000	#N/A
1990	28.68%	30.89%	40.43%	3,419	121,321,839	1.05836	1.059880	1.060247	1.060064	1.060064	5.83%
1991	29.85%	31.23%	38.93%	3,127	124,676,488	1.15736	1.021917	1.014078	1.017990	1.079134	1.78%
1992	25.76%	34.96%	39.29%	3,131	134,861,772	1.19024	1.036923	1.039025	1.037973	1.120113	3.73%
1993	23.13%	36.88%	39.99%	2,981	140,324,146	1.21322	1.009383	1.010378	1.009880	1.131179	0.98%
1994	24.14%	34.36%	41.50%	2,969	137,520,476	1.26555	1.008952	1.009266	1.009109	1.141483	0.91%
1995	22.50%	43.27%	34.23%	2,435	177,845,143	1.30070	1.068902	1.061653	1.065271	1.215989	6.32%
										Average [1986-94]	#N/A
										Average [1986-95]	#N/A

Chart D12: Input Price Index

	Shares			Factor Price Indices			Input Price Indices				
Year	Labor Compensation	Materials Payment	Property Income /w Depreciation	Labor	Materials	Capital	Laspeyers A	Paasche B	Fisher Relative C=(A*B)^0.5	Fisher Chain	Growth
1984											
1985	#N/A	#N/A	#N/A	#N/A	1.00000	#N/A	#N/A	#N/A	#N/A	#N/A	
1986	#N/A	#N/A	#N/A	#N/A	1.02080	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1987	#N/A	#N/A	#N/A	#N/A	1.03537	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1988	28.08%	24.74%	47.18%	1.00000	1.05897	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
1989	29.36%	28.61%	42.02%	1.02912	1.09855	1.00000	#N/A	#N/A	#N/A	1.000000	#N/A
1990	28.68%	30.89%	40.43%	1.04039	1.14338	0.96342	0.999518	0.999865	0.999692	0.999692	-0.03%
1991	29.85%	31.23%	38.93%	1.23075	1.16931	0.88182	1.025229	1.017365	1.021289	1.020974	2.11%
1992	25.76%	34.96%	39.29%	1.04645	1.19377	0.85367	0.949411	0.951335	0.950373	0.970306	-5.09%
1993	23.13%	36.88%	39.99%	0.98329	1.20571	0.84930	0.985942	0.986913	0.986427	0.957137	-1.37%
1994	24.14%	34.36%	41.50%	1.10958	1.23424	0.90972	1.066882	1.067214	1.067048	1.021310	6.49%
1995	22.50%	43.27%	34.23%	1.32586	1.26389	0.76763	0.990486	0.983769	0.987122	1.008158	-1.30%
										Average [1986-94]	#N/A
										Average [1986-95]	#N/A

Cincinnati Bell Estimates based on FCC Staff Model

Chart D9: Capital Quantity and Price Index Calculations

Year	Benchmark	Adjusted Capital Additions	BEA Composite Asset Price	Capital Stock Quantity	Capital Input Quantity	Capital Input Quantity Growth	Property Income /w Depreciation	Capital ental Price*	Capital Rental Price Index	Capital Rental Price Index Growth	Net. Op. Rev.+ Other Op Inc./Exp. - Operating taxes (000)	Interest and Related Items (000)
	A	B	C	D	E	F	G	H	I (Base = 1985)	J	K	L
1984		#N/A		#N/A								
1985	#N/A	#N/A	1.000000	#N/A	#N/A		#N/A	#N/A	#N/A			
1986		#N/A	1.013181	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
1987		#N/A	1.030871	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
1988		95,960	1.035999	786,157	#N/A	#N/A	196,225,765	#N/A	#N/A	#N/A	96,468	19,930
1989		107,340	1.075241	832,034	1.000000	#N/A	178,069,348	0.22651	1.00000	#N/A	86,670	17,851
1990		147,379	1.092233	909,866	1.058355	5.67%	181,566,044	0.21822	0.96342	-3.73%	87,314	23,397
1991		97,654	1.106013	935,717	1.157359	8.95%	181,734,480	0.19974	0.88182	-8.85%	75,194	25,775
1992		91,493	1.111942	953,782	1.190241	2.80%	180,930,886	0.19336	0.85367	-3.24%	74,390	23,872
1993		119,761	1.123482	994,924	1.213221	1.91%	183,479,610	0.19237	0.84930	-0.51%	71,399	23,141
1994		109,385	1.140461	1,022,557	1.265554	4.22%	205,010,893	0.20606	0.90972	6.87%	70,327	25,311
1995		93,391	1.150848	1,033,530	1.300702	2.74%	177,793,760	0.17387	0.76763	-17.00%	47,380	26,896
					Average [1986-94]	#N/A			Average [1986-94]	#N/A		
					Average [1986-95]	#N/A			Average [1986-95]	#N/A		

Notes:

Column D equals prior year Capital Stock less depreciation (6.863%) plus Column B deflated by Column C.
1988 value equals CBT TPIS * RBOC ratio of capital stock quantity to TPIS.

Column G: Chart 8: Column C+ (Chart 9:(K+L)*1000)]*Chart 7: Columns J/K.

Column H equals Column G divided by 1000 times prior year Column D.

Column K: SOCC, accounts 730+7100-7200.

Column L: SOCC, account 7500.

Cincinnati Bell Estimates based on FCC Staff Model

Chart D8: Construction of Materials Quantity Index

Year	Materials Price Index (1985=1.00) A	Operating Expense B	Depreciation & Amortization Expense C	Employee Compensation D	Materials Expense E = B - C - D	Materials Quantity Index F = E / A	Materials Quantity Index (1985 = 1.0) G	Materials Quantity Index Growth H	Total Depr.& Amort. (000) I	Nonreg Depr.& Amort. (000) J
1985	1.0000	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A			
1986	1.0208	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
1987	1.0354	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A		
1988	1.0590	306,703,000	87,058,000	116,778,051	102,866,949	97,138,895	1.000000	#N/A	95,785	8,727
1989	1.0985	326,202,000	80,533,000	124,427,688	121,241,312	110,365,237	1.136159	12.77%	88,303	7,770
1990	1.1434	345,247,000	77,762,000	128,767,896	138,717,104	121,321,839	1.248952	9.47%	83,423	5,661
1991	1.1693	371,509,000	86,382,000	139,342,120	145,784,880	124,676,488	1.283487	2.73%	91,978	5,596
1992	1.1938	366,728,000	87,118,000	118,616,259	160,993,741	134,861,772	1.388340	7.85%	92,197	5,079
1993	1.2057	366,377,000	91,078,000	106,108,142	169,190,858	140,324,146	1.444572	3.97%	94,650	3,572
1994	1.2342	400,375,000	111,388,000	119,253,561	169,733,439	137,520,476	1.415710	-2.02%	113,941	2,553
1995	1.2639	447,028,000	105,357,000	116,895,157	224,775,843	177,845,143	1.830833	25.78%	108,089	2,732
						Average		#N/A		

Sources: Column A: Derived from BLS data as described in text. 1994 and 1995 values are extrapolated.
Column B: SOCC. Chart 7: Columns (P-Q)*1000
Column C: Columns (I-J)*1000
Column D: Chart 6: Column B
Column I: CBT ARMIS Report 43-01, account 1180(b)
Column J: CBT ARMIS Report 43-01, account 1180(c)

In the Matter of	)	
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262

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One Size Does Not Fit All: Further Evidence Against the Adequacy of a Single X-Factor

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The Federal Communications Commission (FCC), in its *Fourth Report and Order*,[2] decided to use a single X-Factor for all price-cap local exchange carriers (LECs). Last summer, we responded with a paper arguing that using a single X-Factor is inequitable and does not capture the inherent difference between RBOCs and smaller companies like Cincinnati Bell Telephone and Aliant.[3] We specifically respond to the FCC's evidence justifying a single X-Factor. In particular, we presented specific evidence that the FCC's X-Factor was inappropriate for Cincinnati Bell. In this paper, we are able to buttress our earlier findings by broadening the analysis to include another mid-sized company — Aliant. Including an additional company in the analysis affords the

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2 FCC, In the Matter of Price Cap Performance Review for Local Exchange Carriers, Access Charge Reform, *Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262*, CC Docket No. 94-1 and CC Docket No. 96-262, adopted May 7, 1997, released May 21, 1997.

3 Jeffrey H. Rohlfs and Kirsten M. Pehrsson, *One Size Does Not Fit All: The Inadequacy of a Single X-Factor for All Price-Cap Companies*, submitted before the Federal Communications Commission, *In the Matter of Price Cap Performance Review for Local Exchange Carriers; Access Charge Reform*, CC Docket Nos. 94-1 and 96-262, Attachment to Petition for Reconsideration, July 11, 1997.

opportunity for sensitivity analyses that prove our estimates to be robust. It also reveals Aliant results that are consistent with those for Cincinnati Bell.

Interim Plan Versus New Plan

Under the FCC's interim price-cap plan, LECs had a choice of X-Factors. LECs which chose the highest X-Factor were exempt from any sharing of earnings. LECs which chose a lower X-Factor incurred obligations to share earnings above certain prespecified levels.

A drawback to this approach is that sharing dilutes the incentives of LECs to improve efficiency. In general, one would expect LECs that operate under sharing regimes to be less efficient in the long run than similar companies operating under pure price caps. For this reason, the FCC abandoned the interim approach in favor of a pure price-cap plan.

We certainly do not criticize the FCC's decision to eliminate sharing. Nevertheless, the interim plan did have the advantage of distinguishing among LECs. It did not envision that one size of price-cap plan fits all companies.

A variform approach to price caps is desirable because price-cap LECs are so diverse. At one extreme are urban companies, such as Cincinnati Bell. At the other extreme are companies which serve entirely rural communities. All these companies are very different from the Regional Bell Operating Companies (RBOCs). Each RBOC is 10 times as large as the smaller companies and each serves diverse areas, including urban and rural communities. Conceivably, the RBOCs are sufficiently homogeneous that a single X-Factor is appropriate for all of them. However, it would be an amazing coincidence if that same X-Factor were also appropriate for Cincinnati Bell and Aliant, as well as companies which serve entirely rural communities. We demonstrate in this paper that there is, in fact, no such coincidence.

The FCC's new price-cap plan should take account of differences among price-cap LECs. It need not give companies a choice of X-Factors (in exchange for differential sharing obligations). It could instead have different X-Factors for companies with different prospects for productivity growth. We discuss below how multiple X-Factors can be used without diluting efficiency incentives.

Response to the FCC's Evidence

In the *Fourth Report and Order*, the FCC adduces a variety of evidence to justify its decision to use a single X-Factor. In this section, we respond to that evidence.

Court Cases

The FCC cites court cases to demonstrate that using a single cost standard is not "inherently" unreasonable.[4] To be sure, a single standard might be the only practical alternative under some circumstances; *e.g.*, if the regulatory body has minimal staff and/or cost data are lacking. However, these considerations obviously do not apply to the FCC.

Indeed, the FCC staff has already developed a computer model of productivity growth. The model that the FCC has disclosed is populated with RBOC data. However, the same model could easily have been populated with data from other LECs.[5] We were able to populate the model with Cincinnati Bell and Aliant data in a few days' time. The FCC could certainly have done likewise.[6] One would certainly have expected that members of the Commission staff would already have populated the model with data from LECs other than RBOCs in order to observe the results. Yet, no results of applying the model to non-RBOC data were discussed in the *Fourth Report and Order*.

Reference to Corrected Norsworthy Model

In justifying the use of a single X-Factor, the FCC does not refer to its own model. Instead, it refers to the Norsworthy model, as corrected by Christensen.[7] The corrected Norsworthy model yields estimates of productivity growth between 2.9 percent per year and 3.1 percent per year. It is hard to see how these estimates can possibly justify setting an X-Factor of 6.5 percent per year for all price-cap LECs.

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[4] *Ibid.*, ¶ 160.

[5] Data from some companies will undoubtedly be incomplete and/or have data problems. Nevertheless, sufficient data are probably available in every case to draw valid inferences about differences in productivity.

[6] Moreover, our task was made more difficult, because the Commission altered its spreadsheet (159chrts.xls) to substitute values for the underlying formulae. We therefore had to take time to reconstruct the formulae. The Commission can use its unaltered spreadsheets and does not have to do such reconstruction.

[7] *Fourth Report and Order*, ¶ 135.

There Is a Basis for Distinction

The FCC observes, "Furthermore, the record contains no convincing proposals that would allow us readily to identify any characteristics by which we could assign individual X-Factors to different price-cap carriers, so there could be multiple 'no sharing' X-Factors."[8] This statement seems to imply that the FCC, like a court of law, can consider only evidence that is submitted by the adversaries in the case. In reality, the FCC has already ranged far afield of the evidence submitted by the parties. Indeed, the whole new price-cap plan is based on productivity analysis conducted by the FCC Staff — analysis which differs substantially from any that has been submitted by the parties. It is a logical next step to use the same model to investigate the efficacy of different X-Factors for non-mandatory price-cap LECs.

There are several ways that the FCC might distinguish among LECs and have different X-Factors. The simplest possibility is to have one X-Factor for the mandatory price-cap LECs and a different X-Factor for other price-cap LECs. This possibility would be appropriate if the FCC Model indicated that non-mandatory companies are homogeneous but different from the mandatory companies. That outcome does not, however, seem likely. Two other possibilities are suggested by a study that we conducted in 1991 and filed at the FCC. According to that study:

- Companies that already have low unit costs tend to have slower productivity growth.[9] If the FCC model supports this finding, there should be a lower X-Factor for companies that already have low unit costs.
- LECs whose holding companies are smaller tend to have slower productivity growth. If the FCC model supports this finding, there should be a lower X-Factor for small holding companies.[10]

The FCC should test these (and other) possibilities with its own cost model. If differences in productivity growth are not related to any of these factors, the FCC would then have an evidentiary basis to support a single X-Factor. We believe that, on the contrary, such analysis would

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[8] *Ibid.*, ¶ 158.

[9] We denoted this finding as the Roseanne Barr effect. That is, it is easier for Roseanne Barr to lose weight than for Arnold Schwarzenegger.

[10] J. Rohlfs, "Differences in Productivity Gains Among Telephone Companies," prepared for CENTEL, September 3, 1991.

provide an evidentiary basis for different X-Factors for different companies.[11] Conceivably, there could be a different X-Factor for each company. However, rough justice (and administrative simplicity) could probably be achieved by having relatively few X-Factors for companies that fall into various categories.

Gaming of Multiple X-Factors

The FCC expresses concern that multiple X-Factors could be gamed by LECs.[12] This concern is certainly understandable. However, gaming would likely be a problem only if the multiple X-Factors are constructed so as to reward poor performance. There would be no problem of gaming if the multiple X-Factors were based on exogenous variables. Furthermore, X-Factors that are lower for low-cost companies encourage good performance. With lower X-factors, companies are allowed to capture a larger portion of the benefits yielded by gains in efficiency over the long run. They thereby enhance the efficiency incentives under price caps.

Choice of X-Factors

The FCC observes that virtually all the mandatory price-cap LECs have opted for the higher X-Factor during at least part of the interim price-cap period.[13] However, this finding obviously cannot justify a single X-Factor for *non-mandatory* price-cap LECs. In reality, the elections of non-mandatory price-cap LECs indicate considerably greater heterogeneity. For example, Southern New England Telephone Company elected the lower X-Factor for both years of the interim plan. Alltel has indicated its lower prospects for productivity growth by declining to elect price caps at all. Until this year, Cincinnati Bell did likewise. Furthermore, Cincinnati Bell and Aliant chose price-caps, in part, to enjoy the greater pricing flexibility that it needs to meet competition — not because it expects productivity growth in excess of 6.5 percent per year. A price-cap regime with multiple X-

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11 We hasten to add that we do not necessarily endorse the FCC's methods for estimating productivity. Nevertheless, the FCC should use a consistent analytical approach. Arbitrarily combining parts of one model (*e.g.*, the Staff Model) with parts of other inconsistent models (*e.g.*, the Norsworthy model, as corrected by Christensen) cannot lead to rational policies.

12 *Fourth Report and Order*, ¶ 159.

13 *Ibid.*, ¶ 157.

Factors would have the advantage of encouraging LECs with lower prospects for productivity growth to elect price caps. If the X-Factors are properly crafted, the outcome could be lower prices for consumers, as well as benefits to the firms.

In any event, one must be cautious in using elections of X-Factors to draw inferences about future productivity growth for the following reason:

> Price-caps are generally conceived as a win-win policy. That is, the productivity gains resulting from price caps are supposed to be shared by the company and its customers. The company's gains are manifest in earnings above its cost of capital. These earnings are expected to grow over the period of a price-cap plan. They decline, but not necessarily to zero, when a new price-cap plan begins.
>
> A company that has been under price-caps may elect a higher X-Factor to postpone sharing productivity gains that it made in the past. Such an election does not necessarily indicate that the company expects rapid productivity growth in the future.

Analysis of Cincinnati Bell and Aliant's Productivity

The FCC chose an overall X-Factor of 6.5 percent, of which 6.0 percent was to reflect productivity and 0.5 percent the CPD (consumer productivity dividend). The average of the 1991-1995 year-to-year X-Factor estimates calculated for the RBOCs was 5.2 percent. The FCC provides several reasons for selection of the 6.0 percent value from the range which varied from 3.4 percent to 6.8 percent. It referred to the RBOCs' consistent achievement of productivity growth near or at the upper end of the range of reasonableness (established at 6.3 percent). The FCC also notes the strong upward trend in productivity growth from 1992 to 1995.

In this section, we present estimates of Cincinnati Bell and Aliant's productivity growth to compare with that of the RBOCs. The estimates are based primarily on the productivity model developed by the FCC Staff. We did, however, need to make adjustments with respect to unregulated costs, measurement of local usage, and interstate special access. The consistent and upward-trending RBOC productivity growth holds using the slightly modified FCC's methodology that we used to perform the comparison. In contrast, however, the productivity growth for both Cincinnati Bell and Aliant over that period was neither consistent nor upward-trending.

Unregulated Costs

The productivity model developed by the FCC Staff does not include outputs associated with unregulated activities. Formally, this omission is manifest in the exclusion of Miscellaneous Revenues, which include revenues from unregulated activities.

As a matter of theory, a productivity model that excludes the outputs of unregulated activities should also exclude the inputs used to produce them. Otherwise, output growth and input growth are inconsistent and cannot be compared to estimate total factor productivity. The FCC Staff Model does not exclude the inputs used in unregulated activities. Failure to exclude such inputs is theoretically suspect. Nevertheless, that methodology may be reasonable for estimating RBOC productivity growth, since unregulated activities constitute only a small part of RBOC output.

That methodology is not, however, reasonable for Cincinnati Bell and Aliant. Unregulated activities are a larger fraction of Cincinnati Bell and Aliant's output than of RBOC output.[14] Furthermore, Cincinnati Bell and Aliant's unregulated activities have followed quite a different pattern than regulated activities; so regulated activities are not an adequate proxy for unregulated activities.[15]

For this reason, we exclude unregulated inputs from our analysis. Our estimates of unregulated inputs for Aliant and Cincinnati Bell are based on annual ARMIS reports.

Local Usage

Aliant data on the number of local calls exhibits a significant drop between 1990 and 1991. In that same period, the number of switched access minutes increased. In order to compensate for any possible data error or other anomaly in that period and to avoid overestimating productivity increases, we substituted a local dial equipment minutes (DEM) series for the local call data series. Local DEMs indicated a steady and consistent increase throughout the period.

We performed sensitivity analyses against our results to test effect of substituting local DEMs for local call data. Using local DEMs instead of local call data increased Cincinnati Bell's

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[14] An important reason for this difference is that Cincinnati Bell and Aliant are not subject to all the separate-subsidiary requirements that the RBOCs are subject to.

[15] In particular, unregulated activities have declined irregularly over the past several years, while regulated activities have grown fairly steadily.

price/productivity differential average for 1991-1995 by 0.5 percent per year. We also measured the effect of substituting local DEMs for call data in the RBOC calculation. Substitution of DEM for call data caused no change in the price/productivity differential average for 1991-1995. (Results for Cincinnati Bell and RBOCs using call data are provided in Tables 4 and 5, in the Appendix.)

These sensitivity analyses confirm the robustness of our estimates. They show that using different methodological approaches yields similar results, and that the gap with RBOC productivity is not merely the anomalous result of a particular measurement scheme. Also, because our use of DEMs increases the measured price/productivity differential average for Cincinnati Bell but does not affect that for the RBOCs, this adjustment serves to make our estimate of the productivity differential more conservative.

Special Access

Cincinnati Bell's data on the number of special-access lines have large year-to-year fluctuations. In any event, the data on number of special-access lines are probably not an adequate quantity index for output for special access. We therefore, exclude special-access from our analysis, as we did in our previous analysis.

The special-access line data for Aliant appeared to be consistent and thereby provide the opportunity to perform a sensitivity analysis on the impact on measured productivity caused by excluding special access for Cincinnati Bell. The analysis shows the impact is slight. The effect of excluding special access from Aliant is to decrease the price/productivity differential average for 1991-1995 by only 0.3 percent per year. The effect of excluding special access from the RBOC calculation is to decrease the price/productivity differential average for 1991-1995 by 0.9 percent per year. (Results for Aliant and RBOCs including special access in the calculation are provided in Tables 5 and 6, in the Appendix).

These sensitivity analyses also confirm the robustness of our estimates. As before, they show that using different methodological approaches yields similar results, and that the gap with RBOC productivity is not merely the anomalous result of a particular measurement scheme. Also, as the decrease in measured RBOC productivity is greater than that for Aliant, this adjustment serves to make our estimate of the difference more conservative.

Results

In our analysis, we are not especially concerned with the absolute levels of productivity growth. Rather, we examine the *difference* in productivity growth between RBOCs, Cincinnati Bell, and Aliant. To ensure comparability, we treat all three entities the same; *i.e.*, we exclude special access and use local DEM instead of local call data.

Table 1 shows results of applying the FCC's methodology, modified as described above, to Cincinnati Bell data. The table shows that Cincinnati Bell's average price/productivity differential from 1990 to 1995 was 3.1 percent per year. The average from 1991 to 1995 was 3.3 percent per year. Table 2 shows results of applying FCC's methodology, modified as described above, to Aliant data. The table shows that Aliant's average price/productivity differential from 1990 to 1995 was 2.6 percent per year. The average from 1991 to 1995 was 2.7 percent per year.

The RBOC results, adjusted for special access and substituting DEMs for local calls, are shown in Table 3. The RBOC price/productivity differential, excluding special access, averaged 4.6 percent per year from 1990 to 1995 and 4.3 percent from 1991 to 1995.

The difference between the Cincinnati Bell and Aliant and RBOC results is enormous. The Cincinnati Bell difference amounted to 1.5 percent per year from 1990 to 1995 and 1.0 percent per year from 1991 to 1995. The Aliant difference amounted to 2.0 percent per year from 1990 to 1995 and 1.6 percent per year from 1991 to 1995. The differentials were even greater in 1994 and 1995, when Cincinnati Bell was subject to incentive regulation and Aliant was subject to price caps. The differential for Cincinnati Bell averaged 4.8 percent per year for those years, while the differential for Aliant was only slightly higher than for 1991-1993. These data strongly suggest that Cincinnati Bell and Aliant both have lower prospects for productivity growth than do RBOCs. This finding is consistent with past studies, which also demonstrated that Cincinnati Bell's productivity growth is slower than that of larger LECs.[16]

Efficiency of Cincinnati Bell and Aliant

The lower productivity growth does not indicate that Cincinnati Bell nor Aliant are less efficient than the RBOCs. On the contrary, Cincinnati Bell is a low-cost company. Cincinnati

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[16] *See* J. Rohlfs, "Incentive Regulation and Estimates of Productivity," prepared for Cincinnati Bell Telephone Company (Attachment I), June 9, 1989. *See* also Rohlfs (1991).

Bell's price for interstate switched access was only $0.021 per minute in 1995. This can be compared to the average RBOC price of $0.028 per minute. The Cincinnati Bell price was almost 40 percent lower than the RBOC price. These price differences reflect differences in unit costs allocated to the interstate jurisdiction. As discussed above, further productivity gains are more difficult for companies that already have low cost.

Aliant's price for interstate switched access was slightly higher than the RBOCs' in 1995. Aliant is a small holding company, and previous research has shown that small holding companies exhibit lower productivity growth.[17] Also, unlike some RBOCs, Aliant serves a large rural population — 40 percent of Aliant's access lines are outside the a metropolitan Lincoln/Lancaster area.

Conclusions

Our productivity analysis demonstrates that Cincinnati Bell and Aliant have had slower productivity growth than the RBOCs. The slow growth does not indicate poor performance by either company. On the contrary, Cincinnati Bell has lower unit costs than the RBOCs and Aliant has comparable unit costs, even though it is much smaller and serves a significant rural population. It is difficult for Cincinnati Bell, Aliant, or any other firm to realize productivity gains at the same rate that higher-cost firms can improve their productivity.

More importantly, one size of price-cap plan does not fit all LECs. It is unfair and inequitable for the FCC to use the same X-Factor for firms that have substantially different prospects for productivity growth. Multiple X-Factors can be developed and used without significant administrative burdens and without allowing gaming by LECs.

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[17] *See* Rohlfs (1991).

Table 1:

Cincinnati Bell Estimates based on FCC Staff Model
(Using DEMs, excluding Special Access)

Components of FCC LEC Price Cap X-Factor [Excluding CPD]

	Input Price Growth Rates			Total Factor Productivity Growth Rates			CBT
	CBT	U.S. Nonfarm Business Sector	Differential	CBT	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1990	-0.03%	3.31%	3.34%	-1.64%	-0.47%	-1.17%	2.2%
1991	2.11%	2.06%	-0.05%	-0.16%	-0.89%	0.73%	0.7%
1992	-5.09%	2.88%	7.97%	-0.90%	1.10%	-2.01%	6.0%
1993	-1.37%	3.72%	5.08%	3.20%	0.55%	2.65%	7.7%
1994	6.49%	3.50%	-2.99%	3.80%	0.50%	3.30%	0.3%
1995*	-1.30%	3.09%	4.39%	-2.37%	0.16%	-2.53%	1.9%
Averages							
[1990-95]	0.14%	3.09%	2.96%	0.32%	0.16%	0.16%	3.1%
[1991-95]	0.17%	3.05%	2.88%	0.71%	0.28%	0.43%	3.3%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

Table 2:

Aliant Estimates based on FCC Staff Model (Using DEMs, excluding Special Access)

Components of FCC LEC Price Cap X-Factor [Excluding CPD]

	Input Price Growth Rates			Total Factor Productivity Growth Rates			Aliant
	Aliant	U.S. Nonfarm Business Sector	Differential	Aliant	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1990	1.73%	3.31%	1.58%	-0.05%	-0.47%	0.43%	2.0%
1991	3.36%	2.06%	-1.31%	-2.52%	-0.89%	-1.63%	-2.9%
1992	1.07%	2.88%	1.81%	2.84%	1.10%	1.73%	3.5%
1993	-0.36%	3.72%	4.08%	1.05%	0.55%	0.50%	4.6%
1994	4.31%	3.50%	-0.81%	4.42%	0.50%	3.92%	3.1%
1995*	4.09%	3.09%	-1.00%	6.45%	0.16%	6.29%	5.3%
Averages							
[1990-95]	2.37%	3.09%	0.73%	2.03%	0.16%	1.87%	2.6%
[1991-95]	2.50%	3.05%	0.55%	2.45%	0.28%	2.16%	2.7%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

Table 3:

RBOC Estimates based on FCC Staff Estimates
(Using DEMs, Excluding Special Access)

Components of FCC LEC Price Cap X-Factor [Excluding CPD]

	Input Price Growth Rates			Total Factor Productivity Growth Rates			LEC
Year	Total RBOCs A	U.S. Nonfarm Business Sector B	Differential C = B - A	Total RBOCs D	U.S. Nonfarm Business Sector E	Differential F = D - E	Price/Productivity Differential G = C + F
1990	1.88%	3.31%	1.43%	4.43%	-0.47%	4.90%	6.3%
1991	-0.85%	2.06%	2.91%	-0.92%	-0.89%	-0.03%	2.9%
1992	2.68%	2.88%	0.21%	3.66%	1.10%	2.56%	2.8%
1993	2.27%	3.72%	1.44%	3.24%	0.55%	2.69%	4.1%
1994	-0.19%	3.50%	3.69%	1.69%	0.50%	1.18%	4.9%
1995*	1.31%	3.09%	1.78%	5.16%	0.16%	5.00%	6.8%
Averages							
[1990-95]	1.18%	3.09%	1.91%	2.88%	0.16%	2.72%	4.6%
[1991-95]	1.04%	3.05%	2.01%	2.56%	0.28%	2.28%	4.3%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

APPENDIX:

Sensitivity Analyses (Tables 4-7)

Table 4:

Cincinnati Bell Estimates based on FCC Staff Model
(Using Local Calls, excluding Special Access)

Components of FCC LEC Price Cap X-Factor [Excluding CPD]

	Input Price Growth Rates			Total Factor Productivity Growth Rates			CBT
	CBT	U.S. Nonfarm Business Sector	Differential	CBT	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1990	-0.03%	3.31%	3.34%	-6.60%	-0.47%	-6.13%	-2.8%
1991	2.11%	2.06%	-0.05%	-0.66%	-0.89%	0.23%	0.2%
1992	-5.09%	2.88%	7.97%	-1.82%	1.10%	-2.92%	5.1%
1993	-1.37%	3.72%	5.08%	3.41%	0.55%	2.86%	7.9%
1994	6.49%	3.50%	-2.99%	5.02%	0.50%	4.52%	1.5%
1995*	-1.30%	3.09%	4.39%	-5.19%	0.16%	-5.35%	-1.0%
Averages							
[1990-95]	0.14%	3.09%	2.96%	-0.97%	0.16%	-1.13%	1.8%
[1991-95]	0.17%	3.05%	2.88%	0.15%	0.28%	-0.13%	2.8%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

Table 5:

RBOC Estimates based on FCC Staff Estimates
(Using Local Calls, excluding Special Access)

Components of FCC LEC Price Cap X-Factor [Excluding CPD]

	Input Price Growth Rates			Total Factor Productivity Growth Rates			LEC
	Total RBOCs	U.S. Nonfarm Business Sector	Differential	Total RBOCs	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1990	1.88%	3.31%	1.43%	5.69%	-0.47%	6.16%	7.6%
1991	-0.85%	2.06%	2.91%	0.78%	-0.89%	1.67%	4.6%
1992	2.68%	2.88%	0.21%	3.89%	1.10%	2.79%	3.0%
1993	2.27%	3.72%	1.44%	2.14%	0.55%	1.59%	3.0%
1994	-0.19%	3.50%	3.69%	1.34%	0.50%	0.84%	4.5%
1995*	1.31%	3.09%	1.78%	4.85%	0.16%	4.69%	6.5%
Averages							
[1990-95]	1.18%	3.09%	1.91%	3.12%	0.16%	2.96%	4.9%
[1991-95]	1.04%	3.05%	2.01%	2.60%	0.28%	2.32%	4.3%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

Table 6:

Aliant Estimates based on FCC Staff Model (Using DEMs, including Special Access)

Components of FCC LEC Price Cap X-Factor [Excluding CPD]

	Input Price Growth Rates			Total Factor Productivity Growth Rates			Aliant
	Aliant	U.S. Nonfarm Business Sector	Differential	Aliant	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1990	1.73%	3.31%	1.58%	-0.17%	-0.47%	0.31%	1.9%
1991	3.36%	2.06%	-1.31%	-1.81%	-0.89%	-0.92%	-2.2%
1992	1.07%	2.88%	1.81%	3.04%	1.10%	1.93%	3.7%
1993	-0.36%	3.72%	4.08%	1.30%	0.55%	0.75%	4.8%
1994	4.31%	3.50%	-0.81%	4.85%	0.50%	4.35%	3.5%
1995*	4.09%	3.09%	-1.00%	6.32%	0.16%	6.16%	5.2%
Averages							
[1990-95]	2.37%	3.09%	0.73%	2.26%	0.16%	2.10%	2.8%
[1991-95]	2.50%	3.05%	0.55%	2.74%	0.28%	2.46%	3.0%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

Table 7:

RBOC Estimates based on FCC Staff Estimates
(Using DEMs, including Special Access)

Components of FCC LEC Price Cap X-Factor [Excluding CPD]

	Input Price Growth Rates			Total Factor Productivity Growth Rates			LEC
	Total RBOCs	U.S. Nonfarm Business Sector	Differential	Total RBOCs	U.S. Nonfarm Business Sector	Differential	Price/Productivity Differential
Year	A	B	C = B - A	D	E	F = D - E	G = C + F
1986	4.94%	2.81%	-2.13%	#N/A	0.92%	#N/A	#N/A
1987	0.56%	2.53%	1.97%	#N/A	-0.02%	#N/A	#N/A
1988	-1.58%	3.73%	5.31%	#N/A	0.46%	#N/A	#N/A
1989	-2.36%	3.04%	5.40%	1.10%	-0.55%	1.66%	7.1%
1990	1.88%	3.31%	1.43%	5.63%	-0.47%	6.11%	7.5%
1991	-0.85%	2.06%	2.91%	0.39%	-0.89%	1.28%	4.2%
1992	2.68%	2.88%	0.21%	4.10%	1.10%	2.99%	3.2%
1993	2.27%	3.72%	1.44%	4.87%	0.55%	4.32%	5.8%
1994	-0.19%	3.50%	3.69%	2.55%	0.50%	2.04%	5.7%
1995*	1.31%	3.09%	1.78%	5.49%	0.16%	5.33%	7.1%
Averages							
[1990-95]	1.18%	3.09%	1.91%	3.84%	0.16%	3.68%	5.6%
[1991-95]	1.04%	3.05%	2.01%	3.48%	0.28%	3.19%	5.2%

*Columns B and E for 1995 are estimated, based on the average of 1990-1994.

In the Matter of	)	
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262

COMMENTS OF THE INDEPENDENT TELEPHONE AND TELECOMMUNICATIONS ALLIANCE

January 7, 2000

EXHIBIT D

Congress of the United States

Washington, DC 20515

August 6, 1998

The Honorable William E. Kennard
Chairman
Federal Communications Committee
1919 M Street
Washington, DC 20554

Dear Chairman Kennard:

We are writing to encourage the Commission to consider granting 2 percent mid-size price cap companies interim relief from the Commission's 6.5 percent unitary productivity offset factor.

It is our understanding that since the beginning of price cap regulation the Commission has allowed for multiple productivity offset factors, at least in part to encourage smaller "voluntary" telephone companies to opt into the price cap regime. Several such companies have, in fact, chosen to participate in price cap regulation in light of this policy. However, the Commission abandoned this approach in its May 1997 Price Cap Order, forcing all carriers to meet a single, substantially higher productivity offset factor. This factor was calculated based upon data provided solely by the largest companies.

We further understand that the mid-size companies have provided the Commission with significant information indicating that a single productivity offset factor does not reflect reality for their companies. At the Commission's request, for example, several mid-size companies undertook a comparative productivity study to demonstrate that the mid-size companies have significantly lower productivity growth than larger mandatory price cap companies. To date, however, the Commission has failed to take these factors into consideration in establishing the productivity offset factor for mid-sized companies.

For these reasons, we encourage the Commission to grant interim relief to mid-sized telephone carriers by establishing a lower, no-sharing productivity offset factor that reflects their unique situation. The Commission should adopt the mid-size companies May 14th recommendations until it conducts a review of their actual productivity. Absent such relief, we remain concerned that the Commission's policies establish a "one-size fits all" approach that may deter, rather than encourage, competition. In fact, Congress recognized the unique ability of smaller and mid-sized companies to foster competition and included a number of provisions specifically targeted to those companies in the 1996 Telecommunications Act.

We appreciate your taking our views into consideration in this matter, consistent with all

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applicable Commission rules and regulations, and look forward to working with you to advance competitive telecommunications policies.

Sincerely,

John Boehner

Ted Strickland

Rick Boucher

Tom Sawyer

Steve Chabot

Rob Portman

Paul Tonko

Steve Buyer

Signed by:

John Boehner
Ted Strickland
Rick Boucher
Tom Sawyer
Steve Chalbot
Michael G. Oxley
Rob Portman
Paul Gillmor
Sherrod Brown